

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 15 in accordance with the following:

1. (PREVIOUSLY PRESENTED) A parallel processor performing parallel processing of one or more basic instructions contained in each of a plurality of instruction words, wherein each of the instruction words consists of the one or more basic instructions to be executed by one or more instruction execution units and delimiting information delimiting the one or more basic instructions, said parallel processor comprising:

N instruction execution units performing processes in accordance with corresponding, supplied basic instructions in parallel, where N is an integer greater than one;

an instruction fetch unit fetching the instruction words one by one in accordance with the instruction delimiting information to supply at least one basic instruction contained in each instruction word; and

an instruction issue unit issuing N instruction pairs in response to the at least one basic instruction supplied from said instruction fetch unit, the N instruction pairs being supplied to N respective instruction execution units for execution of the one or more basic instructions contained in the given instruction word,

wherein each of the N instruction pairs supplied to a corresponding N instruction execution unit includes a basic instruction and a single effective bit controlling whether the basic instruction is to be executed by the corresponding instruction execution unit.

2. (PREVIOUSLY PRESENTED) The parallel processor as claimed in claim 1, wherein the N instruction execution units all have the same structure.

3. (PREVIOUSLY PRESENTED) The parallel processor as claimed in claim 1, wherein:
at least two of the instruction execution units have different structures from each other;

and

the instruction fetch unit rearranges the basic instructions contained in each of the fetched instruction words, in accordance with arrangement of the execution units, and then supplies the rearranged basic instructions to the instruction issue unit.

4. (PREVIOUSLY PRESENTED) The parallel processor as claimed in claim 1, wherein:
at least two of the instruction execution units have different structures from each other;

and

the instruction issue unit rearranges the basic instructions contained in each of the instruction words supplied from the instruction fetch unit, in accordance with arrangement of the instruction execution units, and then supplies the rearranged basic instructions to the instruction execution units.

5. (PREVIOUSLY PRESENTED) The parallel processor as claimed in claim 1, wherein:
at least two of the instruction execution units have different structures from each other;

the instruction fetch unit rearranges the basic instructions contained in each of the fetched instruction words, in accordance with arrangement of the instruction execution units, and then supplies the rearranged basic instructions to the instruction issue unit; and

the instruction issue unit further rearranges the basic instructions contained in each of the instruction words supplied from the instruction fetch unit, in accordance with the arrangement of the instruction execution units, and then supplies the rearranged basic instructions to the instruction execution units.

6. (PREVIOUSLY PRESENTED) The parallel processor as claimed in claim 3, wherein:
at least two of the instruction execution units have different structures from each other;

and

the instruction fetch unit fetches an instruction word that contains basic instructions arranged in advance in accordance with the arrangement of the instruction execution units.

7. (PREVIOUSLY PRESENTED) The parallel processor as claimed in claim 1, wherein, depending on the type of a basic instruction being currently executed by one of the instruction execution units, the instruction issue unit issues a next basic instruction before the execution of the basic instruction being currently executed is completed.

8. (ORIGINAL) The parallel processor as claimed in claim 7, wherein, if a supplied basic instruction does not have data dependency or control dependency, or does not share resources with a basic instruction being currently executed by one of the instruction execution units, the instruction issue unit issues the supplied basic instruction before the execution of the basic instruction being currently executed is completed.

Claims 9-10 (CANCELLED).

11. (PREVIOUSLY PRESENTED) A parallel processor as claimed in claim 1, wherein a first instruction word format is converted into a second instruction word format, the first instruction word format indicating a first arrangement of instruction words from the instruction fetch unit, and the second instruction word format indicating a second arrangement of instruction words which corresponds to the instruction execution units.

12. (PREVIOUSLY PRESENTED) A parallel processor as claimed in claim 1; further comprising a conversion unit, wherein the conversion unit converts a first instruction word format into a second instruction word format on the basis of the effective bit, corresponding to the instruction execution units, indicating whether the corresponding instruction execution unit is available.

13. (PREVIOUSLY PRESENTED) A parallel processor as claimed in claim 12, wherein the first instruction word format indicates a first arrangement of instruction words from the instruction fetch unit, and the second instruction word format indicates a second arrangement of instruction words which corresponds to the instruction execution units.

14. (CANCELLED)

15. (CURRENTLY AMENDED) A parallel processor as claimed in claim 1, wherein the instruction issue unit issues the basic instructions to the corresponding instruction execution unit based on the interface N instruction pairs.

16. (CURRENTLY AMENDED) A parallel processor performing parallel processing of at least one basic instruction contained in each of a plurality of instruction words, each of the instruction words consisting of the at least one basic instruction to be executed by at least one instruction execution unit and delimiting information only delimiting the at least one basic instruction, said parallel processor comprising:

instruction execution units performing processes in accordance with corresponding, supplied basic instructions in parallel;

an instruction fetch unit fetching the instruction words one by one in accordance with the instruction delimiting information; and

an interface setting effective bits each corresponding to one of the instruction execution units and indicating a corresponding instruction execution unit for each basic instruction to be executed from each instruction word, checking codes of the at least one basic instruction to identify the at least one basic instruction and to determine the corresponding instruction execution ~~unit~~for unit for each basic instruction.